

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number : 10/593,039 Confirmation No.: 5751
Appellant : Linda Menrik
Filed : September 30, 2008
Title : FLOOR CLEANING IMPLEMENT

TC/Art Unit : 3723
Examiner: : Robert J. Scruggs

Docket No. : 69409.001017
Customer No. : 21967

Mail Stop Appeal Brief-Patents
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APPEAL BRIEF

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I. INTRODUCTION

In response to the Final Office Action mailed June 16, 2010 (the “Office Action”), rejecting pending claims 1-18, and the Advisory Action mailed August 24, 2010 (the “Advisory Action”) refusing reconsideration of the rejections, Appellant respectfully requests that the Board of Patent Appeals and Interferences (“Board”) reconsider and withdraw the rejections of record, and allow the pending claims. The pending claims are attached hereto as Appendix A.

II. REAL PARTY IN INTEREST

The real party in interest is Aktiebolaget Electrolux, of Stockholm, Sweden, the assignee of the present application.

III. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

IV. STATUS OF CLAIMS

Claims 1-18 are currently pending in this application. All of the pending claims were rejected in the Final Office Action mailed June 16, 2010. Specifically, claims 1, 2, 7-9 and 14-18 were rejected under 35 U.S.C. §103(a) allegedly as being unpatentable over U.S. Pat. No. 7,013,528 (“Parker”) in view of U.S. Pat. No. 6,021,545 (“Delgado”), and claims 3-6 and 10-13 were rejected under 35 U.S.C. §103(a) allegedly as being unpatentable over Parker in view of Delgado and U.S. Pat. No. 3,319,278 (“Frazer”). The rejections of all of the pending claims are appealed.

V. STATUS OF AMENDMENTS

No amendments to the claims were filed subsequent to the Final Office Action.¹

¹ The Advisory Action indicates at Box 7 that the “proposed amendment(s)...will be entered...,” but, the preceding August 16, 2010 Reply did not include any claim amendments.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

A concise explanation of each independent claim is provided below, including references to exemplary portions of the specification. The references to the specification cite to the original specification as filed on September 15, 2006.

A. Explanation of Independent Claim 1

Independent claim 1 is directed generally to a floor cleaning implement having a combination of a brush that throws dirt into a container, and a wetted dust cloth.

Specifically, claim 1 requires a handle pivotally mounted on a base. *See, e.g.*, p. 1, ll. 27-29, and Fig. 1. The base supports a brush arrangement and a dust collecting container. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The dust container is adapted to receive, *via* a dust inlet, dust particles thrown by the brush arrangement. *See, e.g.*, p. 2, ll. 23-28, and Fig. 3. The base also has a cloth holder. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The cloth holder has a plate, facing the floor, that is adapted to be covered by a dust cloth. *See, e.g.*, p. 2, l. 29 - p. 3, l. 3, and Figs. 3 & 5. The cleaning implement also includes a liquid container. *See, id.* Claim 1 also recites means for distributing liquid directly or indirectly to the cloth. *See, id.* The “means for distributing liquid directly or indirectly to the cloth” is shown in the specification as pipes (41, 42, etc.) extending from the liquid container (39) to the bottom of the plate (38). *See, e.g.*, p. 2, l. 29 - p. 3, l. 18, and Fig. 5. A valve may be provided to control the flow from the liquid container through the pipes. *See, e.g.*, p. 2, l. 29 - p. 3, l. 18.

B. Explanation of Independent Claim 10

Independent claim 10 is directed generally to a floor cleaning implement having a combination of a brush that throws dirt into a container, and a wetted dust cloth. Claim 10 differs from claim 1 in that claim 10 requires the brush to include two non-parallel brush rolls.

Specifically, claim 10 requires a handle pivotally mounted on a base. *See, e.g.*, p. 1, ll. 27-29, and Fig. 1. The base supports a brush arrangement having two electrically driven brush rolls that are arranged such that the brush axes are not parallel. *See, e.g.*, p. 2, ll. 10-16, and Figs. 3 & 5. The base also supports a dust collecting container. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The dust container is adapted to receive, *via* a dust inlet, dust particles thrown by the brush arrangement. *See, e.g.*, p. 2, ll. 23-28, and Fig. 3. The base also has a cloth holder. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The cloth holder has a plate, facing the floor, that is adapted to be covered by a dust cloth. *See, e.g.*, p. 2, l. 29 - p. 3, l. 3, and Figs. 3 & 5. The cleaning implement also includes a liquid container. *See, id.* Claim 1 finally recites means for distributing liquid directly or indirectly to the cloth. *See, id.* The “means for distributing liquid directly or indirectly to the cloth” is shown in the specification as pipes (41, 42, etc.) extending from the liquid container (39) to the bottom of the plate (38). *See, e.g.*, p. 2, l. 29 - p. 3, l. 18, and Fig. 5. A valve may be provided to control the flow from the liquid container through the pipes. *See, e.g.*, p. 2, l. 29 - p. 3, l. 18.

C. Explanation of Independent Claim 14

Independent claim 14 is directed generally to a floor cleaning implement having a combination of a brush that throws dirt into a container, and a wetted dust cloth. Claim 14 differs from claim 1 in that claim 14 requires a cloth holder that is removable from the base, and the liquid container to be part of the cloth holder.

Specifically, claim 14 requires a handle pivotally mounted on a base. *See, e.g.*, p. 1, ll. 27-29, and Fig. 1. The base supports a brush arrangement and a dust collecting container. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The dust container is adapted to receive, *via* a dust inlet, dust particles thrown by the brush arrangement. *See, e.g.*, p. 2, ll. 23-28, and Fig. 3. The base also

has a cloth holder. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The cloth holder has a plate, facing the floor, that is adapted to be covered by a dust cloth. *See, e.g.*, p. 2, l. 29 - p. 3, l. 3, and Figs. 3 & 5. The cleaning implement also includes a liquid container. *See, id.* The cloth holder is removably arranged on the base, and the liquid container is part of the cloth holder. *See, id.* Claim 14 also recites means for distributing liquid directly or indirectly to the cloth. *See, id.* The “means for distributing liquid directly or indirectly to the cloth” is shown in the specification as pipes (41, 42, etc.) extending from the liquid container (39) to the bottom of the plate (38). *See, e.g.*, p. 2, l. 29 - p. 3, l. 18, and Fig. 5. A valve may be provided to control the flow from the liquid container through the pipes. *See, e.g.*, p. 2, l. 29 - p. 3, l. 18.

D. Explanation of Independent Claim 16

Independent claim 16 is directed generally to a floor cleaning implement having a combination of a brush that throws dirt into a container, and a wetted dust cloth. Claim 16 differs from claim 14 in that claim 16 requires the liquid container to be an integrated part of the cloth holder.

Specifically, claim 16 requires a handle pivotally mounted on a base. *See, e.g.*, p. 1, ll. 27-29, and Fig. 1. The base supports a brush arrangement and a dust collecting container. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The dust container is adapted to receive, *via* a dust inlet, dust particles thrown by the brush arrangement. *See, e.g.*, p. 2, ll. 23-28, and Fig. 3. The base also has a cloth holder. *See, e.g.*, p. 1, ll. 30-34, and Fig. 3. The cloth holder has a plate, facing the floor, that is adapted to be covered by a dust cloth. *See, e.g.*, p. 2, l. 29 - p. 3, l. 3, and Figs. 3 & 5. The cleaning implement also includes a liquid container. *See, id.* The cloth holder is removably arranged on the base, and the liquid container is an integrated part of the cloth holder. *See, id.* Claim 14 also recites means for distributing liquid directly or indirectly to the cloth.

See, id. The “means for distributing liquid directly or indirectly to the cloth” is shown in the specification as pipes (41, 42, etc.) extending from the liquid container (39) to the bottom of the plate (38). *See, e.g.*, p. 2, l. 29 - p. 3, l. 18, and Fig. 5. A valve may be provided to control the flow from the liquid container through the pipes. *See, e.g.*, p. 2, l. 29 - p. 3, l. 18.

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The general issues on appeal are whether it was proper to reject claims 1, 2, 7-9 and 14-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 7,013,528 (“Parker”) in view of U.S. Pat. No. 6,021,545 (“Delgado”); and whether it was proper to reject claims 3-6 and 10-13 under 35 U.S.C. §103(a) as being unpatentable over Parker in view of Delgado and U.S. Pat. No. 3,319,278 (“Frazer”). As explained in the Argument section, there are three distinct issues:

- (i) whether Parker and Delgado are properly combined, which affects the rejection of all of claims 1-18;
- (ii) whether Parker and Delgado teach a removable cloth holder, which affects the rejection of claims 9, and 14-18; and;
- (iii) whether Parker, Delgado and Frazer are properly combined, which affects the rejection of claims 3-6 and 10-13.

If the Board decides point (i) in Appellant’s favor, all of the claims stand together. Regardless of the decision on point (i), claims 9 and 14-18 stand and fall independently from the remaining claims, and claims 3-6 and 10-13 stand and fall independently from the remaining claims.

VIII. ARGUMENT

A. Brief Description of Art Applied to the Claims

1. Overview of U.S. Pat. No. 7,013,528 to Parker

Parker discloses a floor cleaner having a rotating brush (32) and a dust cloth assembly (20) that holds a cleaning cloth. There are two versions of the Parker device: one uses a conventional low-power cordless vacuum fan assembly (52) that is powered by a battery pack (76), *see* Parker, Figs. 1-17, and the other uses a dirt-throwing arrangement in which a brush (174) projects dirt into an open dust collection bin (176) behind the brush. *Id.*, Figs. 18-19. In the dirt-throwing version, dirt is collected in the bin solely by momentum generated by the rotating brush. In each case, the brush cleans large particles from the floor, and the dust cloth assembly cleans smaller particles. Parker fails to disclose any kind of liquid deposition system that applies a liquid indirectly or directly to the cleaning cloth.

The claims of the present invention specifically recite a device that uses a dirt-throwing arrangement, rather than a vacuum cleaning arrangement. *See, e.g.*, claim 1 (reciting “brush arrangement” and “the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement”). Despite this, the Office Action makes it abundantly clear that it relies on the version of the Parker device having a vacuum motor (Figs. 1-17), and not the version that relies on momentum to throw the particles into the dirt bin (Figs. 18-19). *See* Office Action at 9 (“the embodiment used in the rejection above includes the vacuum source”).

2. Overview of U.S. Pat. No. 6,021,545 to Delgado

Delgado discloses a variety of window washer attachment for vacuum cleaners. in each case, the attachment includes a vacuum passage that terminates at a “squeegee”-like suction

channel (28) having elongated suction channel mouth (15), to remove dirt and fluid from the window. The device also includes a liquid applicator (21) having bristles (22) and a liquid supply tank (23). The bristles convey fluid out of the tank by capillary action to deposit the fluid on the hard surface being cleaned. *See, e.g.,* Delgado at col. 18, ll. 41-46. The particular embodiment relied upon by the Office Action is the one shown in Figures 27-31. This embodiment shows the bristles being covered by a cleaning cloth (95), and the liquid applicator (including cleaning cloth, bristles and supply tank) is slidably mounted on the suction channel. The relative motion between the parts is illustrated in Figures 28-31, which show the applicator (21) in contact with the surface as the lip (17) is moved towards the surface, and then as the whole assembly is tilted downwards with the lip (17) remaining in contact. Delgado fails to disclose any arrangement in which fluid is deposited on a cloth in conjunction with using a rotating brush to remove dirt from the surface.

3. Overview of U.S. Pat. No. 3,319,278 to Frazer

Frazer discloses a rug cleaning device having two cylindrical brushes (16) that are angled relative to one another. *See, e.g.,* Frazer Fig. 3. The brushes are not powered by any kind of motor. Frazer teaches that the angle between the brushes can be adjusted to change the drag profile of the brushes as they are pushed through rugs of various thicknesses. *See, e.g.,* Frazer at col. 3, ll. 45-51. (It will be appreciated that the closer the brushes are to 180 degrees (i.e. axial alignment), the more the brushes will simply roll, but as you angle the brushes, they can no longer roll perpendicular to their roll axes, creating drag.)

B. Rejection under 35 U.S.C. § 103(a) Over Parker and Delgado

Claims 1, 2, 7-9 and 14-18 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Pat. No. 7,013,528 ("Parker") in view of U.S. Pat. No. 6,021,545

(“Delgado”). This combination is improper, and fails to teach all of the limitations of all of the rejected claims.

1. Claims 1-18: There is No Motivation to Combine Parker and Delgado

As noted above, all of the claims recite a floor cleaner having the unique combination of a brush arrangement, a dust collecting container that receives dust particles thrown by the brush arrangement, and a wetted dust cloth. Note that the claimed dust collecting container receives the particles that are “thrown” by the brush—that is to say, the floor cleaner is a “sweeper” type device that uses the force of the rotating brush to strike the dust to throw it into the container. This is in contrast to “vacuum cleaner” arrangements in which the particles are beaten from the surface by the brush, and conveyed to a dirt container by a suction air flow.

The Office Action provides the following alleged motivation to combine Parker (a floor sweeper) with Delgado (a cleaning attachment for a vacuum cleaner):

It would have been obvious to one of ordinary skill in the art to modify the cloth holder, of Parker et al., with the known technique of distributing liquid onto a cleaning cloth, as taught by Delgado et al., and the results would have been predictable. In this situation, one could provide a continuous supply of cleaning liquid onto a cloth thereby more effectively cleaning various surfaces while also enabling continuous working on said surfaces in one operation.

Office Action at 3. This alleged motivation is insufficient as a matter of law, contrary to the teachings of the prior art references, and insufficient basis to reject of the pending claims.

a. The Office Action Fails to Articulate a Reasoned Basis For Combining the References

The Office has identified multiple bases upon which an obviousness rejection can be founded, and each has particular requirements. *See, generally*, M.P.E.P. § 2143. The rejections in this case seem to be premised on the allegation that combining Parker with the “known

technique” of Delgado would yield “predictable results,” but the Office Action does not fully and clearly identify the particular basis for the obviousness allegation, and fails to comply with any established basis for showing obviousness. As best Appellant can tell, the allegations seem to be based on the fourth “exemplary rationale” for supporting an obviousness rejection outlined in the Manual of Patent Examining Procedure. *See* M.P.E.P. § 2143 (“Exemplary rationales that may support a conclusion of obviousness include: ... (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results”). The M.P.E.P. provides rules that “must” be satisfied to articulate a rejection based on this rationale:

To reject a claim based on this rationale, Office personnel must resolve the Graham factual inquiries. Then, Office personnel must articulate the following:

- (1) a finding that the prior art contained a "base" device (method, or product) upon which the claimed invention can be seen as an "improvement;"
- (2) a finding that the prior art contained a known technique that is applicable to the base device (method, or product);
- (3) a finding that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved system; and
- (4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

M.P.E.P. § 2143(D) (emphasis original). It is impossible to say whether or not this truly is the basis for the rejection. Regardless, the rejection is improper under any basis.

The particular problem with relying on the above basis to allege obviousness is that there is no reasoned finding that the technique of Delgado can be applied to the device shown in Parker to “yield predictable results and resulted in an improved system.” As explained below,

the resulting combination would not have yielded predictable results and would not have been improved—rather, the combination would not be predicted because it violates the principles of operation of the two references, and the resulting combination would have ruined the operation of the Parker device. Furthermore, and also as explained below, the combination ignores the *Graham* factors that teach against the combination.

The rejection alleged in the Office Action also fails to satisfy any of the remaining exemplary bases for rejecting a claim as being obvious. For example, Delgado and Parker are not obvious to combine “according to known methods to yield predictable results” (M.P.E.P. § 2143(A)) because, as explained below, the supposed beneficial results would not be predicted as alleged by the examiner, and the functions of the devices would have to be changed to obtain the combination. *See* M.P.E.P. § 2143(A) (*citing KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 82 U.S.P.Q.2d 1385 at 1395 (2007)) (result must be predictable, and there must be “no change in [the elements’] respective functions”). For essentially the same reasons, the combination also is not obvious as a “simple substitution of one known element for another to obtain predictable results” (M.P.E.P. § 2143(B)) or as a “use of a known technique to improve similar...devices the same way” (M.P.E.P. § 2143(C)). Furthermore, the combination would not be “obvious to try” (M.P.E.P. § 2143(E)) because there would be no expectation of success with the combined system. Nor is there any suggestion that design incentives or market forces compelled or motivated the combination (M.P.E.P. § 2143(F)).

Finally, there is no explicit teaching to combine the references upon which the Office Action can rely to make the alleged combination (M.P.E.P. § 2143(G)). Neither prior art reference suggests its features can be used with the device shown in the other reference. Parker teaches a various cleaners that use rotating brushes in combination with a cloth, but says

absolutely nothing about applying liquid to the cloth. Delgado, on the other hand, teaches using a wetted cloth to clean a surface in conjunction with a squeegee-like vacuum nozzle, but says absolutely nothing about operating a wetted cloth in combination with a rotating cleaning brush. Neither reference explicitly suggests any kind of combination with the other kind of device.

As a final note, the Office Action appears to fail any test of obviousness by virtue of its explicit disregard of the *Graham* factors, particularly the requirement to consider aspects of the prior art that teach away from the alleged combination, as well as the Office Action's admitted failure to consider the prior art as a whole. The Office Action disregards legitimate concerns raised about the problems with the alleged combination by claiming that it is relying only on portions of the prior art that allegedly teach the combination, and not relying on the prior art for the portions that teach away from the combination. *See, e.g.*, Office Action at 6 (relying on discrete parts of Delgado, and treating the remaining teachings as "moot"). In fact, the Office Action does not contend with any of the legitimate problems Appellant has identified with the alleged combination in any substantive way. Thus, to make the alleged combination, the Office Action simply ignored the "unfavorable" teachings of the two references. This selective approach to the prior art is improper. It is well-established that "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." M.P.E.P. § 2141.02(VI) (*citing W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)) (emphasis original). The Office is not permitted to put on blinders to ignore teachings in a reference that refute the alleged basis for combining them, as the Office Action did in the present case.

b. The Alleged “More Effective Cleaning” Motivation Is Erroneous

Regardless of which basis the Office Action formally intends to rely upon to argue that the claims are invalid, the reasoning behind the rejections is flawed. The Office Action contends that there are two motivations for combining the references. The first supposed motivation upon which the Office Action relies is that combining Delgado with Parker allegedly would provide “more effectiv[e] cleaning [of] various surfaces.” As noted above, the Office Action does not explain how the combination would provide this supposed advantage. In fact, it is clear that just the opposite would occur. Adding liquid to the Parker cloth literally would create a mess, as explained below.

At the outset, Appellant notes that the Office Action fails to explain how the alleged combination would actually provide these supposed benefits; rather, this conclusion is entirely presumed and not backed up by any articulated rationale. Without an explanation of how the combination would actually provide the supposed motivating reason to combine them, it is impossible to say that such a motivation exists. This failure is fatal—it is well settled that a cursory allegation is insufficient to establish *prima facie* obviousness. See M.P.E.P. § 2143.01(IV). In fact, when one scratches the surface of the conclusory motivation offered in the Office Action, it becomes clear that persons of ordinary skill in the art would not believe that the combination would provide the supposed benefits.

One feature of the Parker device is that it can be operated both with the cleaning cloth behind the rotating brush, and with the cloth in front of the brush:

The vacuum sweeper 10 can be operated as a combination vacuum cleaner and duster, a vacuum cleaner alone or as a duster alone. The handle 12 can be pivoted in a first direction so that the roller brush assembly 16 is positioned in a forward direction for

vacuuming and dusting. Alternatively, the handle 12 can be pivoted in a second direction so that the dust pad assembly 20 is positioned in a forward direction for dusting alone.

Parker at col. 7, l. 63 - col. 8, l. 3. This seems to be a critical feature of the Parker device—in one direction the device provides “vacuuming and dusting” and in the other direction the device provided “dusting alone.” If Parker were modified so that it only operated in one direction or the other, it would lose this dual functionality.

If the Parker device were modified to deposit liquid on the cloth, the liquid would soak both the floor and the dirt in front of the brush whenever the device is operated with the cloth ahead of the brush. Of course, dousing the dirt with fluid would make it significantly more difficult to throw the dirt into the dust collection bin or even to remove it via suction (particularly in a low-power battery-operated device like Parker). The wet particles would tend to hydrostatically adhere to the floor and the brush. Larger pieces of dirt may become too heavy to lift or throw into the collection chamber. Smaller particles and dust would form a muddy slurry, and the brush would spray this in all directions. The resulting wet dirt spray would be unattractive and unsanitary, and may work into the seams of the machine to reach the electronics. Adding liquid to the dirt also would cause it to accumulate into large clumps that are likely to be too heavy to project all the way to the bin even if they do dislodge from the brush. Such clumps would foul the cleaning cloth when the direction is reversed, resulting in smears of dirt on the floor and likely ruining the cloth. In short, wetting the dirt and then striking it with the rotating brush would create a significant mess, and clearly would reduce the dirt-collecting capabilities of the Parker device. Ultimately, the proposed combination does not “more effectively clean[] various surfaces” as claimed by the Office Action; rather, the combination actually would decrease cleaning efficiency.

The Office Action gives no weight or consideration to the significant technical problem caused by wetting the dirt before striking it with the brush, as would be the result of the proposed combination. Instead, the Office Action insists that a “clear motivation has been previously established above,” and again claims, without any explanation or support, that “one desiring to more effectively remove dirt...could look at Delgado.” Office Action at 9 (emphasis added). This circular argument presumes that the Office Action’s earlier conclusory claim that motivation exists is, in fact, correct. But it is not. It also bears noting that there is a significant difference between “could” and “would”—a person that happened to look at the combination of Parker and Delgado in any depth would conclude that the combination would be better at creating a mess than cleaning one up, and consequently disregard that combination.

The only supposed solution to this problem would be to limit Parker to operating in just one direction—with the brush ahead of the wetted cloth. This is the position taken in the Office Action. *See* Office Action at p. 7-8 (arguing that Parker is “capable of being used in only one direction if a user wants to use the device in only one direction”). But this is contrary to Parker’s statement that it is constructed and intended to be operated in both directions. *See, e.g.*, Parker at col. 7, l. 63 - col. 8, l. 3. Thus, one would have to deliberately disregard Parker’s teachings to make the proposed combination work. Of course, Parker does not say anything about this modification because it clearly does not anticipate wetting the cleaning cloth or the many problems doing so would create. It is beyond unlikely that a person of ordinary skill in the art would throw away half of the described utility of Parker to facilitate the combination with Delgado (particularly when it would result in a mess rather than enhanced cleaning).

Given the inherent and abundantly apparent problems of wetting Parker’s cleaning cloth, the argument that the combination would be made to “more effectively clean[] various surface”

is clearly incorrect. First, the Office Action is entirely cursory, fails to provide any meaningful explanation for the basis for the combination, in violation of M.P.E.P. § 2143.01(IV). Second, the fact that the combination would reduce cleaning, rather than enhance it, teaches against the modification. *See, e.g., In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make proposed modification). . Third, the only solution to the problems that destroy the functionality of prior art would be to alter Parker by refusing to operate it in one of the two operating directions explained in the specification, rendering the combination improper because it would change the principle of operation of the prior art. *See, e.g., In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *see also*, M.P.E.P. § 2143(A) (must show that elements are combined with “no change in their respective functions”). Finally, the Office Action ignores all of the readily apparent problems with the combination, seemingly on the basis that it is only relying on discrete parts of the prior art disclosures, while ignoring the rest. This improperly ignores the requirement to address *Graham* factors that teach against obviousness, and violate the rule to consider the art as a whole, including aspects that teach away from the combination. *See, e.g., M.P.E.P. §§ 2141.02(VI) and 2143.*

In view of the foregoing, the supposed motivation to combine the references on the grounds that it would provide “more effective cleaning” is in error and can not support the rejection.

c. The Alleged “Enable Continuous Working...in One Operation” Motivation Is Erroneous

The second alleged motivation to combine the references is that adding Delgado to

Parker would “enabl[e] continuous working on said surfaces in one operation.” The meaning of this phrase is somewhat cryptic—what do “continuous working” and “in one operation” mean? Why couldn’t Parker provide these without needing to add Delgado?² The answer is found in Delgado itself, which uses the terms “continuous working on surfaces” and “in one operation” at various points in the specification to describe unique advantages of the Delgado device. Delgado gives a special meaning to these terms. Delgado provides “continuous working on surfaces,” which is “achieved in that for the purposes of continuous working the liquid applicator is arranged for the continuous supply of liquid *and the mouth of the suction channel is located downstream of the applicator*, relative to an application direction.” *Id.* at col. 1, ll. 44-48 (emphasis added). Thus, Delgado places a stringent operating requirement on the Delgado device: the wetted cleaning cloth (95) must be pulled ahead of the suction inlet, so that the fluid deposited by the wetted cloth is sucked into the suction channel mouth (15) (see arrow “A” in Figure 28, showing direction of movement). This arrangement is what Delgado relies upon to obtain the “continuous cleaning” advantage.

The Office Action touts “continuous cleaning...in one operation” as the motivation to combine Delgado with Parker. However, in order to obtain these benefits, as they are described and defined in Delgado, a person of ordinary skill would have to modify Parker not only by wetting the cloth, but also by operating Parker in the direction that places the wetted cleaning cloth in front of the dirt inlet. As noted above, this arrangement is specifically how Delgado obtains the supposed “continuous cleaning...in one operation” advantage.

² Indeed, Parker already appears capable of “continuous working” and cleaning “in one operation” as those terms are broadly understood, making a combination based on the generic meanings of these terms completely unnecessary.

There are distinct problems with this combination and modification. First, as noted above, Parker says that it is constructed to operate in both directions—that is, either by moving the brush before the cloth, or by moving the cloth before the brush. *See* Parker at col. 7, l. 63 - col. 8, l. 3. In contrast, Delgado insists on operating with the cloth in front of the suction inlet. *See, e.g.,* Delgado at col. 1, ll. 44-48. Parker’s teaching that the Parker device should be operated in a direction with the brush (and thus the suction inlet) in front of the cloth flatly contradicts Delgado’s requirement to have the inlet behind the cleaning cloth. Thus, the two references teach mutually exclusive operations, and both reference consequently teach against their combination with the other. Furthermore, to make the combination, the person of ordinary skill in the art must necessarily operate either Parker or Delgado contrary to its intended operation and teachings—that is, either by operating Parker in only one direction, or by operating Delgado in a direction contrary to Delgado’s teaching. Thus, this combination forces at least one of the references to change its principle of operation.

Even if one disregarded the mutually-exclusive teachings in Delgado and Parker and went forward with the combination, the combination would not provide the supposed “continuous cleaning...in one operation” advantage that allegedly provides a motivation to combine the references. Delgado requires the wetted cloth to be moved in front of the suction inlet in order to obtain “continuous cleaning...in one operation.” Parker simply does not provide this because it is operated in the opposite direction as much as in the required direction. Perhaps more importantly, however, is the fact that operating Parker with the wetted cloth in front of the rotating brush would result in a muddy mess, as explained above. Instead of obtaining “continuous cleaning...in one operation,” the user would end up with a spray of wet dirt.

The problem with operating the wet cloth of Delgado in front of the rotating brush of

Parker would be even more exacerbated if one were to modify the references to arrive at the claimed invention. The invention that is claimed uses a brush that “throws” the dirt into the collecting chamber. This is in contrast to Delgado, which uses a concentrated suction stream to remove dirt (without a rotating brush to spray the wet dirt), and the various embodiments of Parker that use suction to pull the dirt away from the inlet. Devices like the claimed invention rely on inertia to throw the dirt into the container, instead of the force of suction air, and wetting the dirt makes that task all the more difficult and messy. In contrast, Delgado relies solely on a suction stream to draw away the dirt removed from the surface. To arrive at the claimed invention, one would have to ignore Delgado’s clear reliance on a suction source—in contradiction to Delgado’s teaching.

The Office Action dismisses this problem by basing the rejection on the combination of Delgado with the version of Parker that has a vacuum motor. *See*, Office Action at 9. The problem with this argument is that the vacuum cleaner versions of Parker do not include a “the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement,” as recited by the pending claims—so the resulting combination lacks all of the claim elements. Even if one assumed, for the sake of argument, that there is some motivation to combine Delgado with the version of Parker having a vacuum motor, there still would be no motivation to go further and modify the device to use a brush that throws the dirt into the collection chamber because that combination would be even worse than the combination with the vacuum-operated Parker device.

The foregoing demonstrates that the second supposed motivation to combine Parker with Delgado—namely, to “enabl[]continuous working on said surfaces in one operation”—also has no basis in fact. First, as with the first alleged motivation to combine the references, the Office

Action is entirely cursory. *See* M.P.E.P. § 2143.01(IV). Second, the references teach different and incompatible manners of operation (Parker in two directions, and Delgado specifically in one), thereby teaching against their combination and requiring an impermissible change in principle of operation to effectuate the combination. *See, e.g., In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *see also*, M.P.E.P. § 2143. Third, the combination would not even obtain the benefit that supposedly motivates the combination, and instead would have just the opposite result of reducing the performance of the devices. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984); *see also*, M.P.E.P. § 2143(A). Finally, the Office Action also fails to address the clear shortcomings and counter-teachings in the references, which violates the rule to evaluate the prior art as a whole, and to consider *Graham* factors countering any supposed motivation to combine the references. *See* M.P.E.P. §§ 2141.02(VI) and 2143.

In view of the foregoing, the second supposed motivation to combine the references—that the combination would “enabl[e] continuous working on said surfaces in one operation”—is in error and cannot support the claimed combination.

d. Other Problems With The Alleged Combination

Even beyond the foregoing, there are additional problems with the proposed combination. For example, Delgado uses capillary-action bristles to convey fluid from the fluid reservoir to the cloth, and it is questionable whether that arrangement would work in a floor care setting in which pressure on the bristles would cause them to bend and possibly lose their capillary wicking capability or wick uncontrollably. Similarly, although Delgado says it can be operated in any orientation, turning the devices taught in Delgado 90 degrees to a horizontal orientation to use with Parker would cause the fluid to seep uncontrollably through the capillary bristles and to the cloth, which would render the device useless. The Office Action dismisses this latter point by

once again improperly refusing to look at the references as a whole: “The other features within the secondary reference are not part of the combination and thus deemed moot.” Office Action at 10.

e. Conclusion

In view of the foregoing, the Appellant respectfully submits that there is no *prima facie* case of obviousness. The Office Action alleges that the combination is an obvious combination of prior art elements according to known methods to yield predictable results. However, the supposed motivations to combine the references are cursory and incorrect. None of the benefits that supposedly motivate the combination would have been expected to result from the combination; rather, the combination would result in a messy failure that teaches against the combination. Furthermore, Parker and Delgado provide incompatible, contradictory teachings regarding the direction of operation, with the result being that the references teach away from their combination.

Ultimately, the issue raised by the claimed combination is rather simple: Would persons of ordinary skill in the art modify Parker by wetting the cloth as shown in Delgado? The answer is “no.” The wet cloth will make the dirt wet, and you can not effectively remove wet dirt from a floor using a rotating brush. In fact, that will just make the mess even worse. The Office Action simply ignores the reality of the combination, and the fact that the resulting problems teach away from the combination, rather than support it.

2. Claims 9 and 14-18: The Art Fails to Teach All Claim Limitations

Claims 9 and 14-18 all require (a) the cloth holder to be removably arranged on the base and (b) the liquid container to be part of (or an integrated with) the cloth holder. This configuration is shown, for example, in Figures 3 and 5 of the present application. It is settled

that a proper rejection requires all claim limitations to be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 984-85 (C.C.P.A. 1974); *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art.”). Here, the prior art fails to disclose or reasonably suggest a removable combined cloth holder and liquid container unit, as recited in these claims.

Claims 9 and 14-18 are all rejected under the same improper combination of Parker and Delgado discussed above. In addition to the foregoing reasons, the rejections of claims 9 and 14-17 are defective for at least the following reasons.

The Office contends that Parker shows a cloth holder (110) that is removably mounted on the base (14). Office Action at 3 (*citing* Parker, Fig. 12). Parker Figure 12 is an exploded view of the arrangement shown in Figure 13A. *See* Parker at col. 3, ll. 43-44. The fact that a part is shown separately in an exploded view does not mean that part is removable during regular use. In fact, the cloth holder is not described as being removable from Parker’s base unit. Rather, it is “pivotally connected to the base plate 24 through a pair of spaced-apart hinges 112.” Parker at col. 6, ll. 58-60. Appellant has not found anything in Parker to suggest that the plate could or should be modified to be removable from the base.

Similarly, Delgado shows only a *movable* cloth holder, not a *removable* one. As shown in Figures 27-31, one embodiment of Delgado has a combined cloth holder/liquid supply tank that is movable mounted on a suction channel (28). Delgado does not state that these parts can actually be removed—that is to say, completely separated—from the rest of the device. Rather, they remain connected at all times.

Parker and Delgado fail to teach or reasonably suggest the invention recited in claims 9 and 14-17, which require a *removable* cloth holder having an integrated liquid container. Thus,

it is respectfully submitted that this rejection is not proper and fails to establish a *prima facie* case of obviousness. *See* M.P.E.P. § 2143.01.IV.

C. Rejection under 35 U.S.C. § 103(a) Over Parker, Delgado and Frazer

Claims 3-6 and 10-13 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Parker in view of Delgado and U.S. Pat. No. 3,319,278 (“Frazer”). This combination is improper.

1. Claims 3-6 and 10-13: There is No Motivation to Combine Frazer with Parker and Delgado

Claims 3-6 and 10-13 are rejected as allegedly being unpatentable over the combination of Parker and Delgado, in further view of U.S. Pat. No. 3,319,278 (“Frazer”).

Claim 3 requires the cleaner to have two brush rolls with non-parallel axes. The Office Action cites to Frazer for this feature, claiming that:

It would have been obvious to one of ordinary skill in the art to modify the brush arrangement, of Parker et al., with the known technique of forming a cleaning device with two brush rolls arranged such that the brush axes are non parallel, as taught by Frazer, and the results would have been predictable. In this situation, one could provide a brush arrangement having brushes formed in a V-shape with the vertex angle being selectively adjustable between acute and obtuse angles thereby more effectively removing material from the surface being cleaned.

Office Action at 4-5. There are a number of problems with this proposed combination.

First, the Office Action once again provides no basis for either the allegation that the result would be predictable, or, more importantly, that persons of ordinary skill in the art would have recognized the value of the combination prior to the present invention. Thus, the unsupported and speculative argument does not rise to the level of *prima facie* obviousness. *See* M.P.E.P. § 2143.01.IV.

Second, the conclusory basis for the motivation to combine the references lacks any support in either reference. The alleged reason for adding Frazer to Parker is to “provide a brush arrangement having brushes formed in a V-shape with the vertex angle being selectively adjustable between acute and obtuse angles thereby more effectively removing material from the surface being cleaned.” However, Frazer and Parker operate according to very dissimilar principles, and it is not clear at all from the references that Frazer’s angled brushes would have any effect on Parker’s performance.

Frazer is intended for use on carpets and rugs. *See*, Frazer, Title (“Rug Cleaning Apparatus”). In Frazer, the brush is not being powered—rather, it is being dragged through the carpet like a comb or a hairbrush. In order for Frazer to remove particles, the brush is angled so that it does not simply roll over the carpet. Angling the brushes makes their movement “partly a rolling motion and partly a dragging movement to effect good penetration of the brush bristles into the nap of the carpeting.” Frazer at col. 1, ll. 41-43. Frazer changes the angle to vary the drag. *Id.* at col. 1, ll. 46-51. The greater the angle, the deeper the Frazer brush will dig into the carpet as it is being pushed forward, and the less it will roll.

In contrast to Frazer, Parker is intended for use on hard floors. *See*, Parker at col. 1, ll. 15-17. Parker uses powered brushes that rotate in the forward direction to throw dirt and debris backwards. Thus, Parker rotates the brushes in the opposite direction as the brushes in Frazer.

Parker says nothing about how angling the brushes would help the cleaning operation when used with a powered brush that rotates to throw particles into a dirt container. Similarly, Frazer says nothing about how angled brushes would help clean hard floors, which have no rug piles to catch on the brushes. Indeed, the very purpose of angling the brushes is to force the bristles to interact with the carpet piles. Hard floors have no piles, and therefore Frazer’s reason

for angling the brushes in entirely moot. Thus, it is not clear how the Office Action could conclude that adding Frazer's angled brushes for carpets would somehow improve the performance of the Parker device on hard floors. The surface being addressed and the direction of rotation are both substantially different, and nothing in either reference suggests use with the other for any reason at all.

Furthermore, once again there are technical problems with the actual combination that are not addressed or acknowledged in the rejection. First, the Frazer device is a non-motorized brushroll, whereas the brush in Parker is motorized. Nothing in either reference teaches or reasonably suggests how one could motorize Frazer's multi-part brushroll having a complicated variable vertex angle adjustment mechanism. Given the complete lack of instruction, there is no reasonable expectation that the combination would be successful.

The Office Action also overlooks the significant problem that using two unaligned motorized brushes leads can adversely affect steering. The problem is that the brush with the greatest load on it will tend to pull the cleaner along its direction of rotation. Using the angled brushes of Frazer on the motorized brushroll platform in Parker would lead to steering issues that persons of ordinary skill in the art would avoid, and these problems would teach away from the combination.

In view of the foregoing, the Appellant respectfully submits that there is no *prima facie* case of obviousness. There is no motivation to combine the references found outside the disclosure of the present invention, the references do not teach how to make the combination, and the combination presents problems that teach away from combining the references.

IX. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Date: November 16, 2010



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APPENDIX A - CLAIMS

1. (previously presented) A floor cleaning implement comprising:

a handle (11) pivotally mounted on a base (10), said base supporting a brush arrangement (15) and a dust collecting container (16), the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement (15);

said base also being provided with a cloth holder (17) having a plate (38) facing the floor, the plate (38) being adapted to be covered by a dust cloth (43);

a liquid container (39);

and means (41,42) for distributing liquid directly or indirectly to the cloth (43).
2. (previously presented) The floor cleaning implement according to claim 1 characterized in that the brush arrangement includes at least one electrically driven brush.
3. (previously presented) The floor cleaning implement according to claim 2 characterized in that the brush arrangement (15) comprises two brush rolls (24) arranged such that the brush axes are non parallel.
4. (previously presented) The floor cleaning implement according to claim 3 characterized in that said brush axes are arranged in a V-shaped pattern.
5. (previously presented) The floor cleaning implement according to claim 4 characterized in that the tip of the V is placed in the forward movement direction of the implement.

6. (previously presented) The floor cleaning implement according to claim 5 characterized in that the dust inlet (23) is provided with a bottom edge whose shape, seen in top plan view, corresponds to the angular displacement of the brushes (24).
7. (previously presented) The floor cleaning implement according to claim 1 characterized in that the cloth holder (17) is removably arranged on the base (10).
8. (previously presented) The floor cleaning implement according to claim 1 characterized in that the cloth holder (17) is provided with said liquid distributing means.
9. (previously presented) The floor cleaning implement according to claim 7 characterized in that the liquid container is an integrated part of said cloth holder (17).
10. (previously presented) A floor cleaning implement comprising:
 - a handle (11) pivotally mounted on a base (10), said base supporting a brush arrangement (15) comprising two electrically driven brush rolls (24) arranged such that the brush axes are not parallel, and a dust collecting container (16), the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement (15);
 - said base also being provided with a cloth holder (17) having a plate (38) facing the floor, the plate (38) being adapted to be covered by a dust cloth (43);
 - a liquid container (39);
 - and means (41,42) for distributing liquid directly or indirectly to the cloth (43).

11. (previously presented) The floor cleaning implement according to claim 10 characterized in that said brush axes are arranged in a V-shaped pattern.
12. (previously presented) The floor cleaning implement according to claim 11 characterized in that the tip of the V is placed in the forward movement direction of the implement.
13. (previously presented) The floor cleaning implement according to claim 10 characterized in that the dust inlet (23) is provided with a bottom edge whose shape, seen in top plan view, corresponds to the angular displacement of the brushes (24).
14. (previously presented) A floor cleaning implement comprising:
 - a handle (11) pivotally mounted on a base (10), said base supporting a brush arrangement (15) and a dust collecting container (16), the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement (15);
 - said base also being provided with a cloth holder (17) having a plate (38) facing the floor, the plate (38) being adapted to be covered by a dust cloth (43);
 - a liquid container (39);
 - and means (41,42) for distributing liquid directly or indirectly to the cloth (43);
 - wherein the cloth holder (17) is removably arranged on the base (10), and the liquid container is part of said cloth holder (17).
15. (previously presented) The floor cleaning implement according to claim 14 characterized in that the cloth holder (17) is provided with said liquid distributing means.

16. (previously presented) A floor cleaning implement comprising:

a handle (11) pivotally mounted on a base (10), said base supporting a brush arrangement (15) and a dust collecting container (16), the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement (15);

said base also being provided with a cloth holder (17) having a plate (38) facing the floor, the plate (38) being adapted to be covered by a dust cloth (43);

a liquid container (39);

and means (41,42) for distributing liquid directly or indirectly to the cloth (43);

wherein the cloth holder (17) is removably arranged on the base (10), and the liquid container is an integrated part of said cloth holder (17).

17. (previously presented) The floor cleaning implement according to claim 16 characterized in that the cloth holder (17) is provided with said liquid distributing means.

18. (previously presented) The floor cleaning implement according to claim 8 characterized in that the liquid container is an integrated part of said cloth holder (17).

APPENDIX B - EVIDENCE

NONE

APPENDIX C - RELATED PROCEEDINGS

NONE